

## **AMENDMENTS TO THE CLAIMS**

1-23. (Cancelled)

24. (Currently Amended) A method, performed by a computer hardware system, of managing a set of processes and a set of resources within the computer hardware system, comprising:

identifying, from the set of processes within the computer hardware system, a plurality of lagging processes;

identifying, from the set of resources within the computer hardware system, a plurality of available resources that are available for use by the plurality of lagging processes;

calculating, for a particular one of the plurality of lagging processes, a calculated benefit to be realized upon a particular one of the plurality of available resources being assigned to the particular one of the plurality of lagging processes, the benefit being calculated based on actual performance improvements that were obtained from one or more previous allocations of the same or similar set of available resources to the particular process;

comparing the calculated benefit for the particular one of the plurality of lagging processes with other calculated benefits for others of the plurality of lagging processes being assigned the particular one of the plurality of available resources; and

assigning, within the computer hardware system and based upon the comparing, the particular one of the plurality of available resources to a selected one of the lagging processes.

25. (Previously Presented) The method of claim 24, wherein the selected one of the lagging processes is a most responsive process to the particular one of the plurality of available resources.

26. (Previously Presented) The method of claim 24, further comprising executing the selected one of the lagging processes using the particular one of the plurality of available resources.

27. (Previously Presented) The method of claim 24, further comprising identifying, from the set of processes within the computer hardware system, an accelerated process; and

reassigning a resource, from the accelerated process, to the selected one of the lagging processes.

28. (Previously Presented) The method of claim 24, wherein the calculating is based upon a benefit knowledge database.

29. (Previously Presented) The method of claim 24, wherein the calculated benefit for the particular one of the plurality of lagging processes includes a calculated saved time between

(i) the particular one of the plurality of lagging processes being assigned the particular one of the available resources, and

(ii) the particular one of the plurality of lagging processes not being assigned the particular one of the available resources.

30. (Currently Amended) A computer hardware system for managing a set of processes and a set of resources within the computer hardware system, comprising:  
at least one processor, the at least one processor including

a process module configured to identify, from the set of processes within the computer hardware system, a plurality of lagging processes;

a resource module configured to identify, from the set of resources within the computer hardware system, a plurality of available resources that are available for use by the plurality of lagging processes;

a benefit module configured to calculate, for a particular one of the plurality of lagging processes, a calculated benefit to be realized upon a particular one of the plurality of available resources being assigned to the particular one of the plurality of lagging processes, the benefit being calculated based on actual performance improvements that were obtained from one or more previous allocations of the same or similar set of available resources to the particular process;

an allocation module configured to perform a comparison between the calculated benefit for the particular one of the plurality of lagging processes and other calculated benefits for others of the plurality of lagging processes being assigned the particular one of the plurality of available resources; and

assigning, within the computer hardware system and based upon the comparison, the particular one of the plurality of available resources to a selected one of the lagging processes.

31. (Previously Presented) The computer hardware system of claim 30, wherein

the selected one of the lagging processes is a most responsive process to the particular one of the plurality of available resources.

32. (Previously Presented) The computer hardware system of claim 30, wherein

the at least one processor includes an execution module configured to execute the selected one of the lagging processes using the particular one of the plurality of available resources.

33. (Previously Presented) The computer hardware system of claim 30, wherein

the process module is configured to identify, from the set of processes within the computer hardware system, an accelerated process; and

the allocation module is configured to reassign a resource, from the accelerated process, to the selected one of the lagging processes.

34. (Previously Presented) The computer hardware system of claim 30, further comprising a benefit knowledge database, wherein

the benefit module is coupled to the benefit knowledge database and calculates the calculated benefit utilizing the benefit knowledge database.

35. (Previously Presented) The computer hardware system of claim 30, wherein

the calculated benefit for the particular one of the plurality of lagging processes includes a calculated saved time between

(i) the particular one of the plurality of lagging processes being assigned the particular one of the available resources, and

(ii) the particular one of the plurality of lagging processes not being assigned the particular one of the available resources.

36. (Currently Amended) A computer-readable storage medium having stored therein computer usable program code for managing a set of processes and a set of resources within a computer hardware system, the computer usable program code, when executed by the computer hardware system, causing the computer hardware system to perform:

identifying, from the set of processes within the computer hardware system, a plurality of lagging processes;

identifying, from the set of resources within the computer hardware system, a plurality of available resources that are available for use by the plurality of lagging processes;

calculating, for a particular one of the plurality of lagging processes, a calculated benefit to be realized upon a particular one of the plurality of available resources being assigned to the particular one of the plurality of lagging processes, the benefit being calculated based on actual performance improvements that were obtained from one or more previous allocations of the same or similar set of available resources to the particular process;

comparing the calculated benefit for the particular one of the plurality of lagging processes with other calculated benefits for others of the plurality

of lagging processes being assigned the particular one of the plurality of available resources; and

assigning, within the computer hardware system and based upon the comparing, the particular one of the plurality of available resources to a selected one of the lagging processes.

37. (Previously Presented) The computer-readable storage medium of claim 36, wherein

the selected one of the lagging processes is a most responsive process to the particular one of the plurality of available resources.

38. (Previously Presented) The computer-readable storage medium of claim 36, further comprising

executing the selected one of the lagging processes using the particular one of the plurality of available resources.

39. (Previously Presented) The computer-readable storage medium of claim 36, further comprising



identifying, from the set of processes within the computer hardware system, an accelerated process; and

reassigning a resource, from the accelerated process, to the selected one of the lagging processes.

40. (Previously Presented) The computer-readable storage medium of claim 36, wherein

the calculating is based upon a benefit knowledge database.

41. (Previously Presented) The computer-readable storage medium of claim 36, wherein

the calculated benefit for the particular one of the plurality of lagging processes includes a calculated saved time between

(i) the particular one of the plurality of lagging processes being assigned the particular one of the available resources, and

(ii) the particular one of the plurality of lagging processes not being assigned the particular one of the available resources.